

**DEPARTMENT OF TRANSPORTATION****DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.21**WELDING WITNESS REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WWR-000165**Date Inspected:** 29-Mar-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 800**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**Location:** Shanghai, China**Witness:** **Procedure Qualification Record**  
**Welding** **NDT****Welder Qualification****Mechanical Testing, describe:** all weld metal tension,  
reduced section tension, side  
bend, charpy (CVN) and  
groove weld macroetch  
specimens.**Fracture Critical****Index Lot #:** B71-019-07a**Witness Lot #:** B49-020-07**Bridge No:** 34-0006**Component:** Bid: 52**Welder:** Zhang Xing Jin**ID #:** N/A**Joint Description:** B-U2-S

N/A

**WPS ID #:** PWS-B-T2221-F-5

N/A

**Base Metal:** ASTM A709-50F-2

N/A

**PQR ID #:** HP200748

N/A

**Thickness:** 26 mm

N/A

**Process:** SAW

N/A

**Electrode Spec/Class:** AWS 5.17/F7A2-EM12K

N/A

**Positions:** 1-G

N/A

**Backing Material:** ASTM-A709-50T-2

N/A

**CWI:** Huang Wei

N/A

**Average Amps:**

N/A

**AWS Code:** D1.5 2002

N/A

**Average Volts:**

N/A

**Applicable Sec:** 5.13

N/A

**Travel Speed:**

N/A

**Heat Input:**

N/A

**Preheat:**

N/A

**Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector was present as requested by ZPMC Quality Assurance Manager, Mr. Lui Lui to witness the mechanical testing for procedure qualification (PQR) testing of HP200748. The PQR test plate was welded in the 1G position using the submerged arc welding (SAW) process. The SAW welding consumable is identified as a 4.8mm electrode, AWS specification A5.17, classification EM12K and F7A2 type flux. The mechanical testing was performed in accordance with AWS D1.5 section 5.13, figure 5.1 requirements. The weld test specimens appeared to comply with the contract documents.

**Summary of Conversations:**

At 0900 hours. ZPMC Quality Control Inspector, Mr. Hu Gang met with Caltrans QA and stated that ZPMC would be performing mechanical for PQR HP200748 at 0930 hours. At 0930 hours Caltrans was present to witness the mechanical testing.

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## WELDING WITNESS REPORT

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is in general conformance with the contract requirements.

**Observed welding,testing or results:**

is not in conformance with the contract requirements.

**Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

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**Inspected By:** Hasler,Mike

Quality Assurance Inspector

**Reviewed By:** McClary,David

QA Reviewer